

Translation

PATENT COOPERATION TREATY

PCT/JP2003/004634



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference H02040P	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/004634	International filing date (day/month/year) 11 April 2003 (11.04.2003)	Priority date (day/month/year) 26 April 2002 (26.04.2002)
International Patent Classification (IPC) or national classification and IPC F16H 61/42, 61/40		
Applicant HITACHI CONSTRUCTION MACHINERY CO., LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 6 sheets.
3. This report contains indications relating to the following items:
 - I ☒ Basis of the report
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 26 November 2003 (26.11.2003)	Date of completion of this report 02 June 2004 (02.06.2004)
Name and mailing address of the IPEA/JP Facsimile No.	Authorized officer Telephone No.

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International application No.

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I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1,3-16 _____, as originally filed
pages _____, filed with the demand
pages _____ 2,2/1 _____, filed with the letter of _____ 09 February 2004 (09.02.2004)
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-11 _____, filed with the letter of _____ 09 February 2004 (09.02.2004)
- ☒ the drawings:
pages _____ 1-14 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

2. Citations and explanations**List of documents cited in the ISR****Document 1**

JP, 2001-304409, A (Komatsu Ltd.), October 31, 2001 (10.31.01), claims, (Family: none)

Document 2

JP, 2000-074213, A (Shin Caterpillar Mitsubishi Ltd.), March 14, 2000 (03.14.00), claims, (Family: none)

Document 3:

JP, 1-116371, A (Mitsubishi Heavy Industries Ltd., MHI Sagami Hai Tec K.K.), May 9, 1989 (05.09.89), page 2 upper right column lines 5-11, (Family: none)

Document 4

JP, 6-193730, A (Hitachi Construction Machinery Co., Ltd.), July 15, 1994 (07.15.94), paragraph [0050], Fig. 5, (Family: none)

(1) The inventions described in claims 1-5, 7, 10 and 11 do not appear to involve an inventive step based on document 1 or 2 cited in the ISR. Documents 1 and 2 describe art for decelerating a traveling motor by increasing capacity of the traveling motor when a rotational speed of the traveling motor faster at or above a prescribed value is detected, in order to prevent over-speed of the traveling motor. The prescribed value of said rotational speed and degree of increase in motor capacity can be determined as appropriate by a person skilled in the art. Further, it would be easy for a party skilled in the art to conceive of restoring normal control when the motor speed that had exceeded a prescribed value falls below the prescribed value due to such motor capacity control.

(2) The invention described in claim 6 does not appear to involve an inventive step based on documents 1, 2 and 3 cited in the ISR. Document 3 describes art for gradually controlling traveling motor capacity. Adopting the art described in document 3 to the traveling motor control described in document 1 or 2 to conceive of the invention described in claim 6 would be easy for a person skilled in the art.

(3) The invention described in claim 8 does not appear to involve an inventive step based on documents 1, 2 and 4 cited in the ISR. Document 4 discloses the technical idea of increasing control force by increasing relief pressure of hydraulic oil from the traveling motor in accordance with traveling speed, i.e., with traveling motor rotational speed. It would be easy for a person skilled in the art to conceive of the invention described in claim 8 by applying the technical idea described in document 4 to the deceleration control of the traveling motor described in document 1 or 2.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box V:

(4) The invention described in claim 9 does not appear to involve an inventive step based on documents 1, 2, 3 and 4 cited in the ISR. Generally, performing gradual control in order to prevent shock is a common art, as can be seen from the descriptions in document 3. Applying the common art described in document 3 and the art described in document 4 to control of the traveling motor as described document 1 or 2 and thus conceiving of the invention described in claim 9 would be easy for a person skilled in the art.